

TABLE N1101.1(1) PRESCRIPTIVE ENVELOPE REQUIREMENTS ^a				
BUILDING COMPONENT	STANDARD BASE CASE		LOG HOMES ONLY	
	Required Performance	Equiv. Value ^b	Required Performance	Equiv. Value ^b
Wall insulation—above grade ^c	U-0.05 ^d	R-21 Intermediate ^e	Note d	Note d
Wall insulation—below grade ^d	C-0.05 ^f	R-15 @ R-21	C-0.05 ^f	R-15 @ R-21
Flat ceilings ^g	U-0.021	R-49	U-0.020	R-49 A ^h
Vaulted ceilings ^g	U-0.033	R-30 Rafter or R-30A ^h Scissor Truss	U-0.027	R-38A ^h
Underlaths	U-0.033	R-30	U-0.033	R-30
Slab-edge perimeter ^h	F-0.520	R-15	F-0.520	R-15
Heated slab interior ⁱ	n/a	R-10	n/a	R-10
Windows ^j	U-0.27	U-0.27	U-0.27	U-0.27
Skylights	U-0.50	U-0.50	U-0.50	U-0.50
Exterior doors ^k	U-0.20	U-0.20	U-0.54	U-0.54
Exterior doors with > 2.5 ft ² glazing ^l	U-0.40	U-0.40	U-0.40	U-0.40

For SF: 1 inch = 25.4 mm, 1 square foot = 0.0929 m², 1 degree = 0.0175 rad, n/a = not applicable.

a. As allowed in Section N1104.1, thermal performance of a component may be adjusted provided that overall heat loss does not exceed the total resulting from conformance to the required U-factor standards. Calculations to document equivalent heat loss shall be performed using the procedure and approved U-factors contained in Table N1104.1(1).

b. R-values used in this table are nominal for the insulation only in standard wood-framed construction and not for the entire assembly.

c. Wall insulation requirements apply to all exterior wood framed, concrete or masonry walls that are above grade. This includes cripple walls and rim joist areas. Nominal compliance with R-21 insulation and Intermediate Framing (N1104.2) with insulated headers.

d. The wall component shall be a minimum solid log or timber wall thickness of 3.5 inches.

e. Below-grade wood, concrete or masonry walls include all walls that are below grade and do not include those portions of such wall that extend more than 24 inches above grade. R-21 for insulation in framed cavity; R-15 continuous insulation.

f. Insulation levels for ceilings have limited attic/rafter depths such as dormers, bay windows or similar architectural features totaling not more than 150 square feet in area may be reduced to not less than R-21. When reduced, the cavity shall be filled (except for required ventilation spaces). R-49 insulation installed to minimum 6-inches depth at top plate at exterior of structure to achieve U-factor.

g. Vaulted ceiling surface area exceeding 50 percent of the total heated space floor area shall have U-factor no greater than U-0.026 (equivalent to R-38 rafter or scissor truss with R-38 advanced framing).

h. A = Advanced frame construction. See Section N1104.6.

i. Heated slab interior applies to concrete slab floors (both on and below grade) that incorporate a radiant heating system within the slab. Insulation shall be installed underneath the entire slab.

j. Sliding glass doors shall comply with window performance requirements. Windows exempt from testing in accordance with Section NF1111.2, Item 3 shall comply with window performance requirements if constructed with thermal break aluminum or wood, or vinyl, or fiberglass frames and double-pane glazing with low-emissivity coatings of 0.10 or less. Buildings designed to incorporate passive solar elements may include glazing with a U-factor greater than 0.35 by using Table N1104.1(1) to demonstrate equivalence to building thermal envelope requirements.

k. A maximum of 28 square feet of exterior door area per dwelling unit can have a U-factor of 0.54 or less.

l. Glazing that is either double pane with low-e coating on one surface, or triple pane shall be deemed to comply with this requirement.

m. Minimum 24-inch horizontal or vertical below-grade.

CHAPTER 11: ENERGY EFFICIENCY

SECTION N1101 ALL CONDITIONED SPACES WITHIN RESIDENTIAL BUILDINGS SHALL COMPLY WITH TABLE N1101.1(1) AND (1) ADDITIONAL MEASURE FROM TABLE N1101.1(2)

WALL INSULATION ABOVE GRADE: R-21 INSULATION
VAULTED CEILING: R-30 INSULATION
FLAT CEILING: R-49 INSULATION
WINDOWS: U-0.27 (AVERAGE UA)
EXTERIOR DOORS: U-0.20
EXTERIOR DOORS W/ GREATER THAN 2.5FT² GLAZING: U-0.40
(IF DOUBLE PANE W/ LOW-E COATING ON ONE SURFACE) U-0.30

N1104.2.6 BELOW-GRADE EXTERIOR INSULATION. BELOW-GRADE EXTERIOR INSULATION SHALL MEET THE FOLLOWING CONDITIONS:

1. THE INSULATION SHALL BE A MATERIAL THAT IS APPROVED FOR BELOW-GRADE APPLICATIONS IN WET ENVIRONMENTS.
2. INSULATION SHALL BE INSTALLED FROM THE TOP OF THE FOOTING TO THE TOP OF THE CONCRETE BASEMENT WALL.
3. INSULATION SHALL BE ADEQUATELY PROTECTED FROM THE ELEMENTS (ULTRAVIOLET AND MECHANICAL) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. THE TOP OF THE INSULATION SHALL BE INSTALLED IN A MANNER TO ALLOW WATER RUNOFF AND PREVENT POOLING.

TABLE N1101.1(2)
ADDITIONAL MEASURES

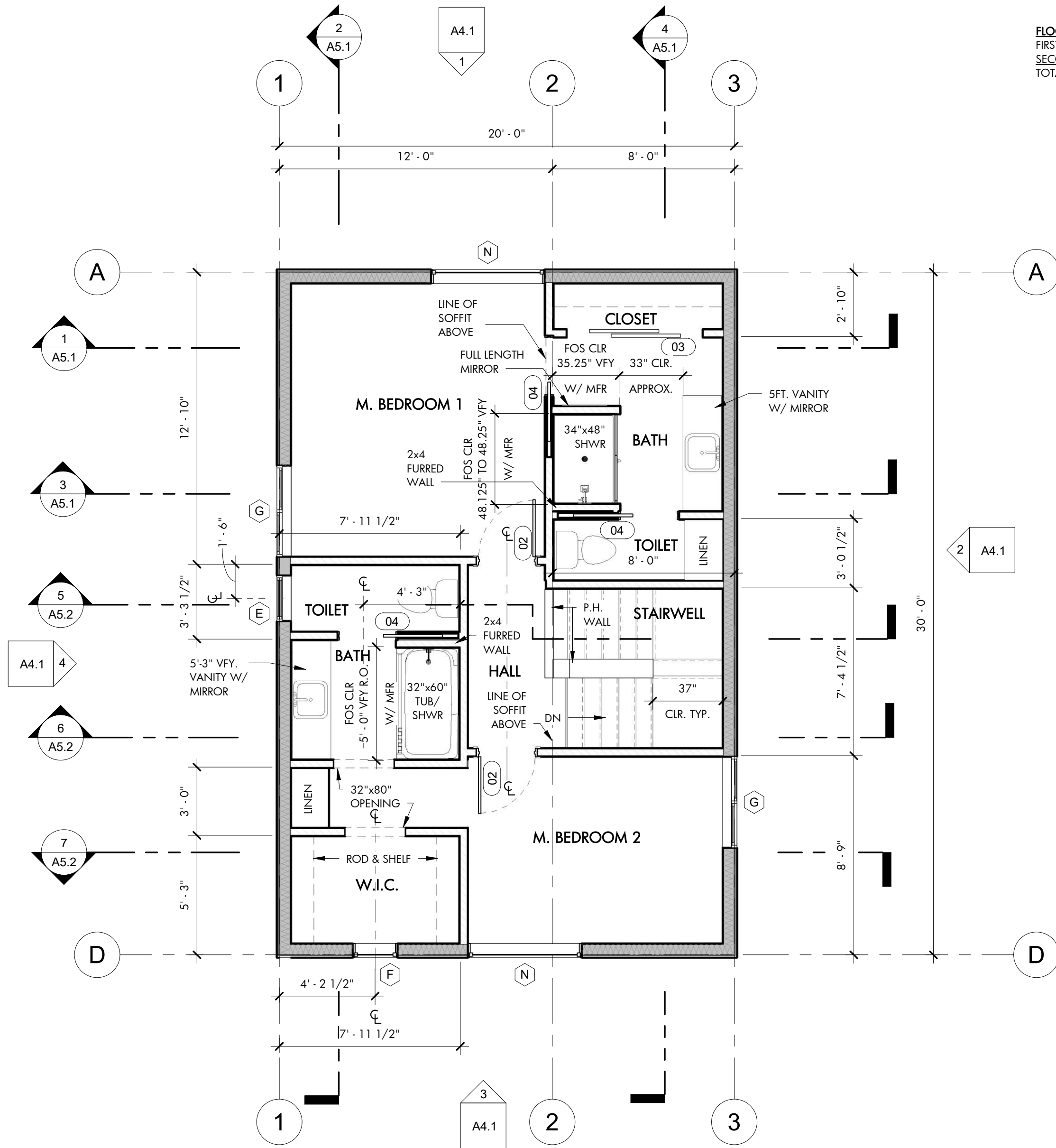
1	HIGH EFFICIENCY HVAC SYSTEM^a a. Gas-fired furnace or boiler AFUE 94 percent, or b. Air source heat pump HSPF 10.0/14.0 SEER cooling, or c. Ground source heat pump COP 3.5 or Energy Star rated
2	HIGH EFFICIENCY WATER HEATING SYSTEM a. Natural gas/propane water heater with minimum UEF 0.90, or b. Electric heat pump water heater with minimum 2.0 COP, or c. Natural gas/propane tankless/instantaneous heater with minimum 0.80 UEF and Drain Water Heat Recovery Unit installed on minimum of one shower/tub-shower
3	WALL INSULATION UPGRADE Exterior walls—U-0.045/R-21 conventional framing with R-5.0 continuous insulation
4	ADVANCED ENVELOPE Windows—U-0.21 (Area weighted average), and Flat ceiling ^b —U-0.017/R-60, and Framed floors—U-0.026/R-38 or slab edge insulation to F-0.48 or less (R-10 for 48"; R-15 for 36" or R-5 fully insulated slab)
5	DUCTLESS HEAT PUMP For dwelling units with all-electric heat provide: Ductless heat pump of minimum HSPF: 10 in primary zone replaces zonal electric heat sources, and Programmable thermostat for all heaters in bedrooms
6	HIGH EFFICIENCY THERMAL ENVELOPE UA^c Proposed UA is 8 percent lower than the code UA
7	GLAZING AREA Glazing area, measured as the total of framed openings is less than 12 percent of conditioned floor area
8	3 ACH AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION Achieve a maximum of 3.0 ACH50 whole-house air leakage when third-party tested and provide a whole-house ventilation system including heat recovery with a minimum sensible heat recovery efficiency of not less than 66 percent.

For SF: 1 square foot = 0.093 m², 1 watt per square foot = 10.8 W/m².

a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.

b. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.

c. In accordance with Table N1104.1(1), the Proposed UA total of the Proposed Alternative Design shall be a minimum of 8 percent less than the Code UA total of the Standard Base Case.



2 LEVEL 2 - FLOOR PLAN
1/4" = 1'-0"

CODE REQUIREMENTS

2021 OREGON RESIDENTIAL SPECIALTY CODE

CHAPTER 3: BUILDING PLANNING

SECTION R302.7 UNDERSTAIR PROTECTION

ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDERSTAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2" GYP. BD.

SECTION R311.2 EGRESS DOOR

NOT LESS THAN ONE EGRESS DOOR SHALL BE PROVIDED FOR EACH DWELLING UNIT. THE EGRESS DOOR SHALL BE SIDE-HINGED, AND SHALL PROVIDE A CLEAR WIDTH OF NOT LESS THAN 32 INCHES WHERE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. THE CLEAR HEIGHT OF THE DOOR OPENING SHALL BE NOT LESS THAN 78 INCHES IN HEIGHT MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE STOP.

SECTION R311.3 FLOORS AND LANDINGS AT EXTERIOR DOORS

THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2 PERCENT).

SECTION R311.3.1 FLOOR ELEVATIONS AT THE REQUIRED EGRESS DOORS

LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1 1/2 INCHES LOWER THAN THE TOP OF THE THRESHOLD. EXCEPTION: THE LANDING OR FLOOR ON THE EXTERIOR SIDE SHALL NOT BE MORE THAN 8 INCHES BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR.

SECTION R311.7 STAIRWAYS

R311.7.1: STAIRWAYS SHALL NOT BE LESS THAN 36 INCHES IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4 1/2 INCHES ON EITHER SIDE OF THE STAIRWAY AND THE CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL NOT BE LESS THAN 31 1/2 INCHES WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 27 INCHES WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.

R311.7.5.1: THE RISER HEIGHT SHALL NOT BE MORE THAN 8 INCHES. OPEN RISERS ARE PERMITTED PROVIDED THAT THE OPENINGS LOCATED MORE THAN 30 INCHES, AS MEASURED VERTICALLY, TO THE FLOOR OR GRADE BELOW DO NOT PERMIT THE PASSAGE OF A 4 INCH DIAMETER SPHERE.

R311.7.5.2: THE TREAD DEPTH SHALL NOT BE LESS THAN 9 INCHES.

R311.7.8.1: EXCEPTION #3: WHEN A HANDRAIL IS INCORPORATED AS THE TOP OF A GUARD, THE MINIMUM HEIGHT SHALL NOT BE LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES AS MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING EDGES OF THE TREADS.

R311.7.8.2: HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT, FROM A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEVEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2 INCHES BETWEEN THE WALL AND THE HANDRAILS. SEE SECTION R311.7.8.3 FOR GRIP SIZE.

SECTION R312.1 GUARDS

R312.1.2: REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES, INCLUDING PORCHES, BALCONIES, DECKS, OR LANDINGS SHALL NOT BE LESS THAN 36 INCHES IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE.

R312.1.3: REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT THAT ALLOW PASSAGE OF A 4 INCHES IN DIAMETER SPHERE.

LEGEND



EXTERIOR WALLS - 2x6 FRAMING @ 24" O.C.

(FRAMING)
EXTERIOR SIDING ON EXTERIOR WALLS (NOTE STUD SPACING FOR ATTACHMENT PURPOSES) O/
HOUSE WRAP or WRB O/
WALL SHEATHING (OSB/PLYWOOD PANELS) PER STRUCT. DWGS. O/ 2x6 WOOD STUDS @ 24" O.C. PER STRUCT. DWGS.
R-21 HIGH DENSITY FIBERGLASS BATT INSULATION OR EQUIVALENT THAT MEETS ENERGY REQ. (THERMAL)

INTERIOR SIDE:
1/2" GWSB O/
CLASS II VAPOR RETARDER (ORSC R318.1) O/
WOOD STUD FRAMING PER STRUCT. DWGS.

INTERIOR LOAD BEARING WALL - 2x6 FRAMING @ 24" O.C.

1/2" GWSB EA. SIDE O/ FRAMING
SHEATHING WHERE OCCURS PER STRUCTURAL DRAWINGS

INTERIOR - 2x4 FRAMED WALL @ 16" O.C. U.N.O.

1/2" GWSB EA. SIDE O/ FRAMING;
FURRED WALL 1/2" GWSB (1) LAYER INTERIOR SIDE

THICK (UNINSULATED) FRAMED WALL @ 16" O.C. U.N.O.

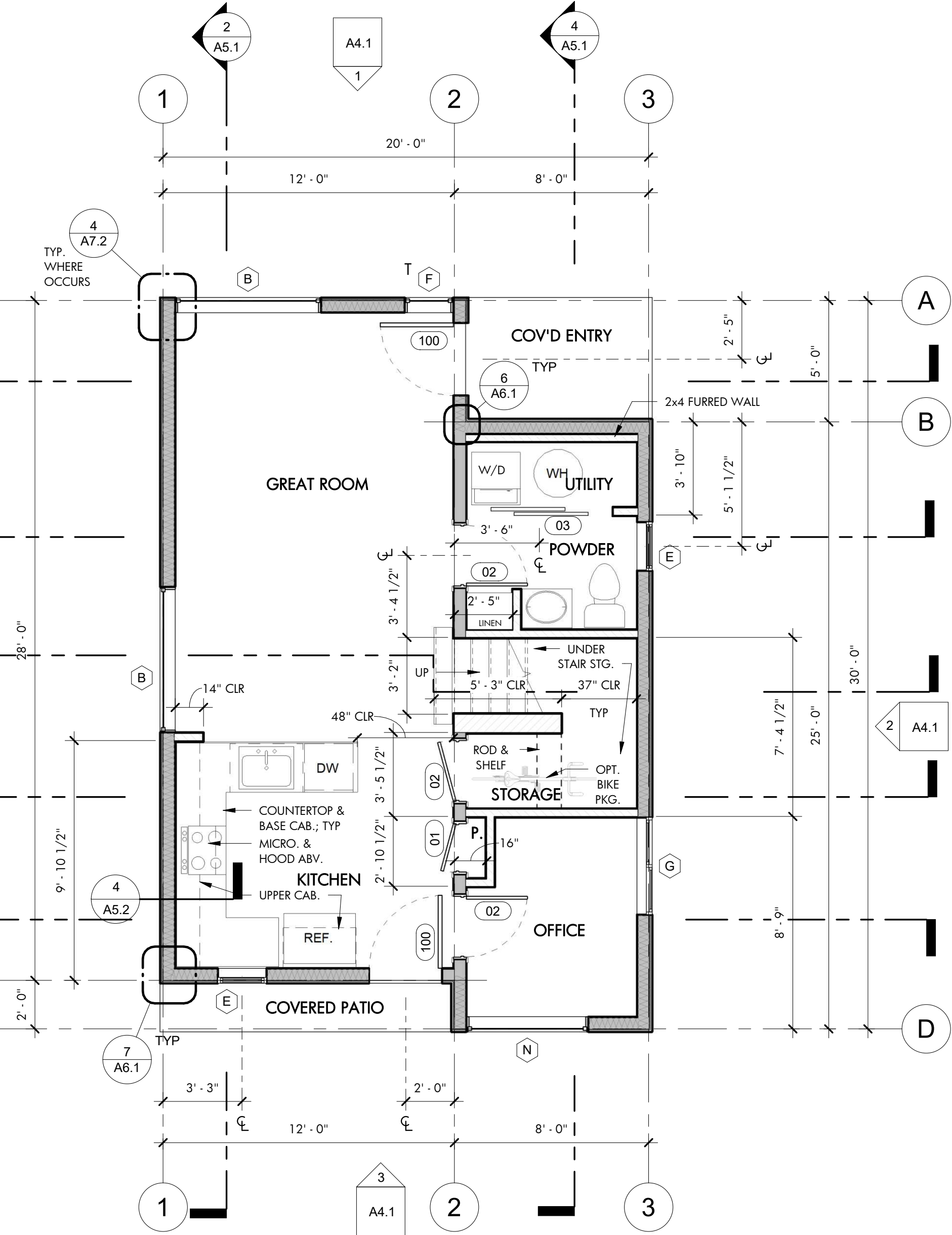
1/2" GWSB EA. SIDE O/ FRAMING

HBFP

HOSE BIB FROST PROTECTION

ALL FINISH FLOOR IS TO BE VINYL, U.N.O.

FLOOR AREA CALCS.:
FIRST FLOOR = 539 SF
SECOND FLOOR = 600 SF
TOTAL = 1139 SF



1 LEVEL 1 - FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES - PLAN

1. DETAIL CALLOUTS ARE TYPICAL WHERE OCCUR, U.N.O.
2. DIMENSIONS ARE TO FACE OF STUD, GRID LINE, OR CENTER LINE OF DOOR/WINDOW OPENING U.N.O.
3. INTERIOR DOORS TO BE CENTERED BETWEEN ADJACENT WALL FRAMING; U.N.O.
4. CENTER PLUMBING FIXTURES WHERE SHOWN. WATER CLOSETS TO BE A MIN. OF 15" CLEAR FROM FACE OF G.W.B.
5. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.
6. COORDINATE ARCHITECTURAL DRAWINGS WITH ALL DISCIPLINES (STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC) PRIOR TO COMMENCING WORK.
7. SEE SHEET A7.1 FOR WINDOW & DOOR INFORMATION. WINDOW SIZES AND ROUGH OPENINGS TO BE VERIFIED BY THE CONTRACTOR. ALL WINDOWS WITHIN 18 INCHES OF THE FLOOR AND WITHIN 24 INCHES OF ANY DOOR ARE TO HAVE TEMPERED GLAZING.
8. WINDOW LOCATIONS WITHOUT DIMENSIONS TO BE PLACED PER DETAIL 4/A7.2 & WHERE SIMILAR CONDITION OCCURS (WINDOW IS PERPENDICULAR TO ANY WALL)
9. ARCHITECTURAL DETAILS ARE SHOWN ON SHEET AS.X & A6.X
10. ALL SHOWER ENCLOSURES ARE TO BE GLAZED WITH SAFETY GLASS WHERE OCCUR PER CONTRACTOR.
11. EACH BEDROOM TO HAVE A MINIMUM EGRESS WINDOW OPENING OF 5.7 SQ. FT. WITH A MINIMUM WIDTH OF 20 INCHES AND A SILL LESS THAN 44 INCHES ABOVE FINISH FLOOR.
12. SEE REFLECTED PLAN FOR CEILING INFORMATION.
13. COORDINATE PLUMBING FIXTURES AND APPLIANCES WITH CASEWORK SHOP DRAWINGS AS REQ'D PRIOR TO INSTALLATION.
14. BATHROOMS AND UTILITY ROOMS ARE TO BE VENTED TO THE OUTSIDE WITH A FAN CAPABLE OF PRODUCING A MINIMUM OF AIR EXCHANGES PER HOUR. RANGE HOODS ARE ALSO TO BE VENTED TO THE OUTSIDE.
15. BATHROOM COUNTERTOPS ARE SHOWN AT 20" - 21" DEEP. KITCHEN COUNTERTOPS ARE SHOWN AT 25" DEEP, U.N.O. ADA COUNTERTOPS TO BE 24" DEEP WITHIN ADA UNIT. ALTERNATIVE COUNTERTOP DEPTH BY OTHERS TO BE FIELD VERIFIED PRIOR TO ORDERING AND INSTALLING.



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PROJECT

2127_A1

DRAWING

FLOOR PLANS

PROJECT

COTTAGES ON
HELMHOLTZ - A1
SW HELMHOLTZ WAY
REDMOND, OREGON

REVISION

DATE REVISIONS

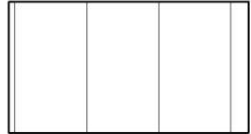
ISSUE DATE

05/05/22

SHEET

A2.1

LEGEND - ROOF



ROOFING:
STANDING SEAM METAL ROOF
CHAMPION METAL: SNAP-LOC or STREAMLINE STANDING SEAM
(OR APPROVED EQUAL BY CONTRACTOR)

GENERAL NOTES - ROOF

- METAL ROOFING: INSTALL & FASTEN PER MFR; TYP. APPLY BUTYL SEALANT/ TAPE AND FOAM CLOSURES WHERE REQUIRED.
- ROOF ASSEMBLY & INSULATION MATERIALS SHALL COMPLY WITH CHAPTER 8 & 9 OF THE 2021 ORSC
- NEW ROOF PENETRATIONS SHALL COMPLY WITH THE PLUMBING & MECHANICAL CODE SECTION OF THE 2021 ORSC. COORDINATE WITH RESPECTIVE CONSULTANT AND FLASH PER MANUFACTURER. VERIFY SIZE & LOCATION
- PRIMARY ROOF STRUCTURE TO BE PREMANUFACTURED TRUSSES. TRUSS MANUFACTURER TO PROVIDE LAYOUT AND CALCULATIONS. SEE FRAMING PLANS & STRUCTURAL DRAWINGS FOR COMPONENT DESIGN INTENT.
- SEE SHEET A6.X FOR DETAILS. SEE SHEET A5.X FOR SECTIONS AND DETAIL CALLOUTS.

MIN NET FREE VENTILATION AREA CALCULATION:

WITHOUT VENTILATORS:
ATTIC FLOOR AREA DIVIDED BY 150 SQUARE FEET
EQUALS THE SQUARE FOOTAGE TO BE VENTED.
THE RESULT IS THE MINIMUM SQUARE INCH AREA NEEDED
FOR INTAKE AND EXHAUST VENTILATION.
(SPLIT THIS AMOUNT EQUALLY BETWEEN INTAKE AND EXHAUST)

AREA OF ROOF TO BE VENTED:

ATTIC FLOOR = 616 SQ.FT.
 $616 / 150 = 4.11 \text{ SQ.FT.} \times 144 = 592 \text{ SQ.IN.} / 2 = 296 \text{ SQ.IN. MIN.}$
REQUIRED MINIMUM VENTILATION
296 SQ.IN. (148 SQ.IN. EACH SIDE/EAVE) FOR INTAKE VENTILATION
296 SQ.IN. FOR EXHAUST VENTILATION

INTAKE VENTILATION HOLES @ EVERY BAY:
AT TOP OF BUK'G, CUT (2) 3" SQUARE NOTCHES (U.N.O.)
EQUALLY = 10 SQ.IN. (APPROX) PER BAY

WITH VENTILATORS & CODE REQ. MET:

ATTIC FLOOR AREA DIVIDED BY 300 SQUARE FEET
EQUALS THE SQUARE FOOTAGE TO BE VENTED.
THE RESULT IS THE MINIMUM SQUARE INCH AREA NEEDED
FOR INTAKE AND EXHAUST VENTILATION.
(SPLIT THIS AMOUNT EQUALLY BETWEEN INTAKE AND EXHAUST)

AREA OF ROOF TO BE VENTED:

ATTIC FLOOR = 616 SQ.FT.
 $616 / 300 = 2.06 \text{ SQ.FT.} \times 144 = 296 \text{ SQ.IN.} / 2 = 148 \text{ SQ.IN. MIN.}$
REQUIRED MINIMUM VENTILATION
148 SQ.IN. FOR INTAKE VENTILATION
148 SQ.IN. FOR EXHAUST VENTILATION

INTAKE VENTILATION HOLES @ EVERY OTHER BAY:
AT TOP OF BUK'G, CUT (2) 3" SQUARE NOTCHES (U.N.O.)
EQUALLY = 10 SQ.IN. (APPROX) PER BAY

CODE REQUIREMENTS

2021 OREGON RESIDENTIAL SPECIALTY CODE (ORSC)

CHAPTER 8: ROOF - CEILING CONSTRUCTION

SECTION R806.1 VENTILATION
ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF 1/16 INCH MINIMUM AND 1/4 INCH MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSION LARGER THAN 1/4 INCH SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF 1/16 INCH MINIMUM AND 1/4 INCH MAXIMUM. OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF SECTION R802.7. REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR AND SHALL BE PROTECTED TO PREVENT THE ENTRY OF BIRDS, RODENTS, SNAKES AND OTHER SIMILAR CREATURES.

SECTION R806.2 MINIMUM VENT AREA.
THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE.

EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
1. A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.

2. NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

SECTION R806.3 VENT AND INSULATION CLEARANCE.
WHERE EAVE OR CORNICE VENTS ARE INSTALLED, BLOCKING, BRIDGING AND INSULATION SHALL NOT BLOCK THE FREE FLOW OF AIR. NOT LESS THAN A 1-INCH SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AND AT THE LOCATION OF THE VENT.

SECTION R806.4 INSTALLATION AND WEATHER PROTECTION.
VENTILATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALLATION OF VENTILATORS IN ROOF SYSTEMS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION R903. INSTALLATION OF VENTILATORS IN WALL SYSTEMS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION R703.1.

SECTION R807.1 ATTIC ACCESS
BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES OR GREATER OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET. THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHERE LOCATED IN A WALL, THE OPENING SHALL BE NOT LESS THAN 22 INCHES WIDE BY 30 INCHES HIGH WHERE THE ACCESS IS LOCATED IN A CEILING, MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30 INCHES AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF CEILING FRAMING MEMBERS. SEE SECTION M1305.1.2 FOR ACCESS REQUIREMENTS WHERE MECHANICAL EQUIPMENT IS LOCATED IN ATTICS.

CHAPTER 3: BUILDING PLANNING

SECTION R314.1 SMOKE ALARMS
SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND THIS CODE SECTION R314.

SECTION R314.3 LOCATION
SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

- IN EACH SLEEPING ROOM.
- OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
- SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY SECTION R314.3.

SECTION R314.3.1 INSTALLATION NEAR COOKING APPLIANCES
SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING LOCATIONS UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM IN A LOCATION REQUIRED BY SECTION R314.3.

- IONIZATION SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 20 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

- IONIZATION SMOKE ALARMS WITH AN ALARM SILENCING SWITCH SHALL NOT BE INSTALLED LESS THAN 10 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

- PHOTOELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

SECTION R314.4 INTERCONNECTION
WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT IN ACCORDANCE WITH SECTION R314.3, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT.

SECTION R314.5 COMBINATION ALARMS
COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS.

SECTION R315 CARBON MONOXIDE ALARMS
SECTION R315.1.1 LISTINGS. CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 2034.

* COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 2034 AND UL 217.

SECTION R315.3 LOCATION
CARBON MONOXIDE ALARMS SHALL BE LOCATED IN EACH BEDROOM OR WITHIN 15 FEET OUTSIDE OF EACH BEDROOM DOOR.

GENERAL NOTES - RCP

- SEE FLOOR PLAN GENERAL NOTES & WALL ASSEMBLY DESCRIPTION.
- SEE OVERALL ROOF PLAN FOR ROOF INFORMATION
- SMOKE & CARBON MONOXIDE COMBO DETECTORS TO BE INTERCONNECTED AND POWERED BY PREMISE WIRING AND HAVE BATTERY BACKUP.

LEGEND - RCP



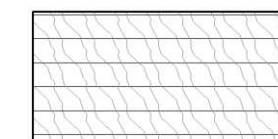
DROPPED FLAT CEILING - GYPSUM CEILING O/
2x FRAMING (SEE STRUCT. DWGS.)



VAULTED CEILING



CEILING OF FLOOR ABOVE

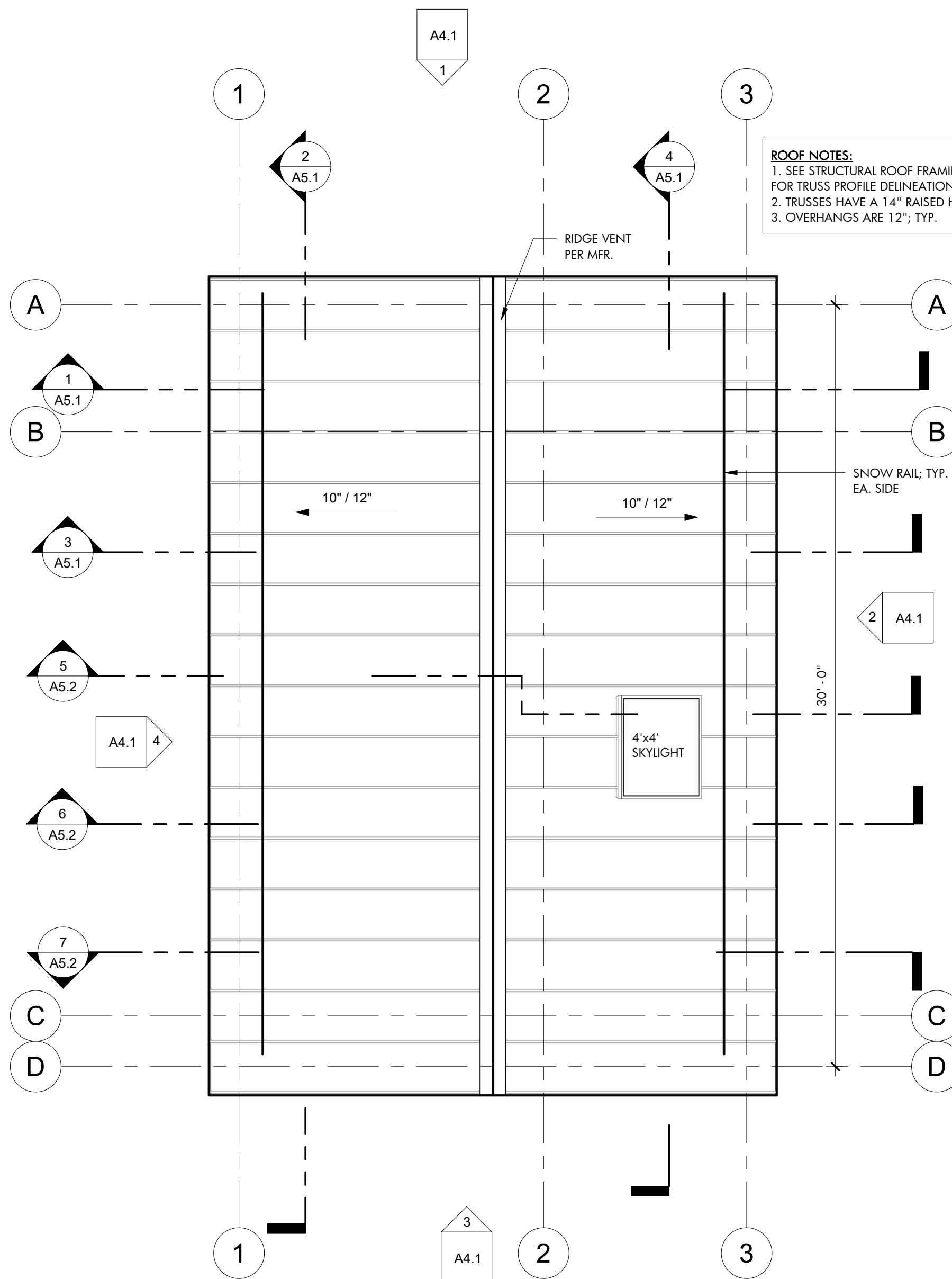


EXTERIOR SOFFIT: T&G WOOD;
- AT COVERED PATIOS, ALIGN GROOVES WITH SIDING BELOW
PRODUCT: BRECKENRIDGE SOFFIT OR APPROVED EQUAL;
WEATHER SEALED WITH CLEAR FINISH

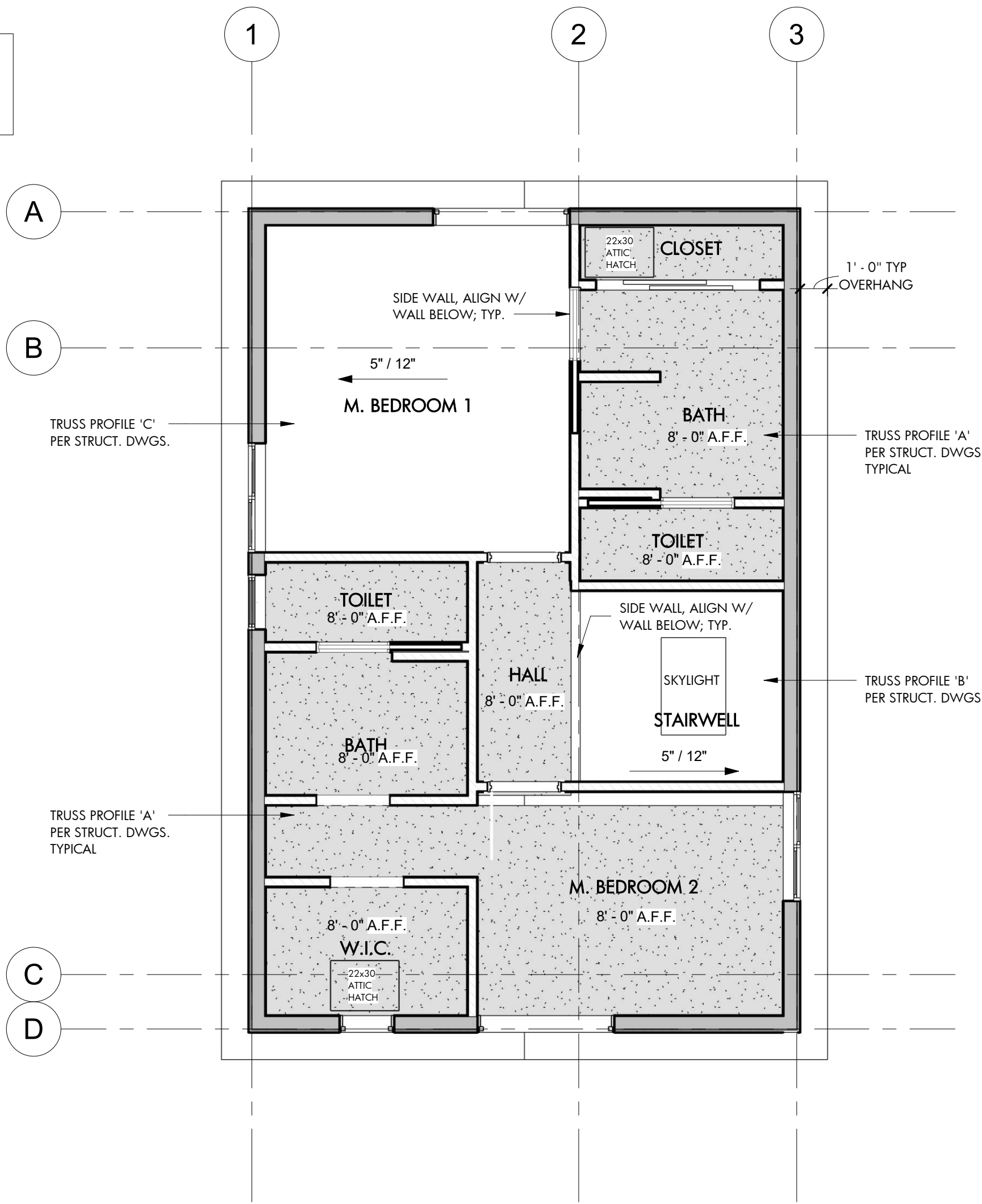


COMBO SMOKE DETECTORS AND CARBON
MONOXIDE DETECTORS TO BE INTERCONNECTED
AND POWERED BY PREMISE WIRING AND TO BE IN
ACCORDANCE WITH UL 268 AND UL 2075 PER
R314.7.4 ORSC WITH BATTERY BACKUP

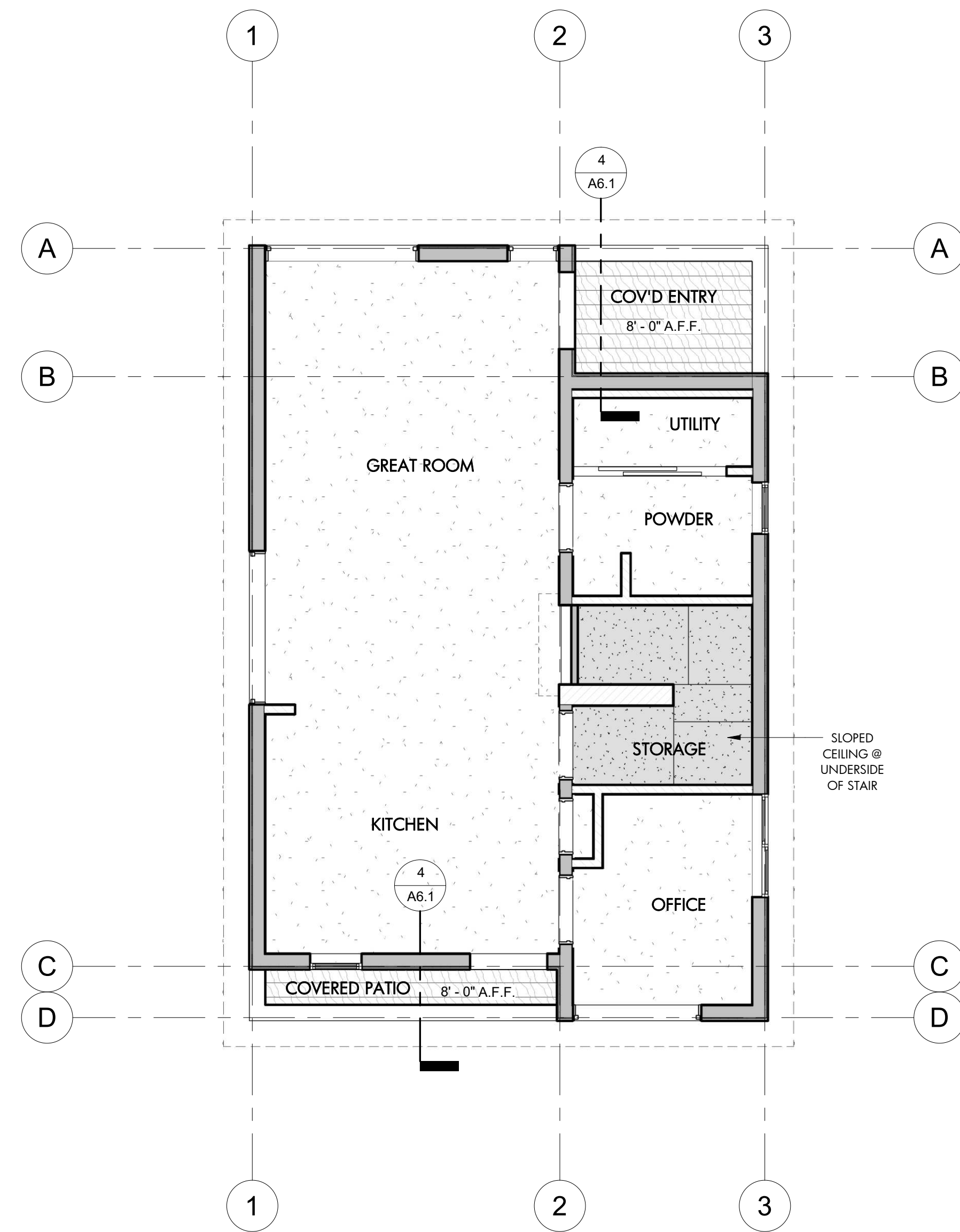
NOTE: SEE ELECTRICAL DRAWINGS FOR LOCATIONS



3 ROOF PLAN
1/4" = 1'-0"



2 LEVEL 2 - REFLECTED CEILING PLAN
1/4" = 1'-0"



1 LEVEL 1 - REFLECTED CEILING PLAN
1/4" = 1'-0"



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DESIGN ARCHITECT

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PROJECT #

2127_A1

DRAWING

REFLECTED
CEILING PLANS
& ROOF PLAN

PROJECT

COTTAGES ON
HELMHOLTZ - A1
SW HELMHOLTZ WAY
REDMOND, OREGON

REVISION

DATE REVISIONS

ISSUE DATE

05/05/22

SHEET

A2.2

GENERAL NOTES - WINDOWS

- SEE SHEET A7.2 FOR DOOR & WINDOW DETAILS.
- WINDOW AND DOOR FLASHING TO BE INSTALLED PER HOUSE WRAP MANUFACTURER'S RECOMMENDATIONS OR WINDOW MANUFACTURER RECOMMENDATIONS TO SUPERCEED ARCHITECTURAL DETAILS FOR WARRANTY REASONS OR BETTER WATERPROOFING PRACTICE PER WINDOW TYPE. CONTRACTOR TO CONSULT ARCHITECT ON APPROVED METHOD PRIOR TO INSTALLING WINDOWS.
- WINDOWS TO HAVE A U-FACTOR OF 0.28 AND COMPLY WITH CODE SECTION N1104.4

SAFETY GLAZING REQUIREMENT

SAFETY / TEMPERED GLAZING MUST BE INSTALLED IN ALL LOCATIONS REQUIRED BY THE CODE SECTIONS LISTED BELOW.

2021 OREGON RESIDENTIAL SPECIALTY CODE

SECTION R308.4.1 GLAZING IN DOORS

GLAZING IN FIXED AND OPERABLE PANELS OF SWINGING, SLIDING, AND BIFOLD DOORS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

SECTION R308.4.2 GLAZING ADJACENT TO DOORS

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR SHALL BE CONSIDERED A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE AND IT MEETS EITHER OF THE FOLLOWING CONDITIONS:

- WHERE THE GLAZING IS WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION.
- WHERE THE GLAZING IS ON A WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24 INCHES OF THE HINGE SIDE OF AN INSWINGING DOOR.

* SEE EXCEPTIONS WHERE APPLIES.

SECTION R308.4.3 GLAZING IN WINDOWS

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS SHALL BE A HAZARDOUS LOCATION:

- THE EXPOSED AREA OF AN INDIVIDUAL PANE IS LARGER THAN 9 S.F.;
- THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR;
- THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR; AND
- ONE OR MORE WALKING SURFACES ARE WITHIN 36" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE OF THE GLAZING.

* SEE EXCEPTION WHERE APPLIES.

SECTION R308.4.6 GLAZING ADJACENT TO STAIRS

GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES (914 MM) ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS

AND RAMP SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.
* SEE EXCEPTION WHERE APPLIES.

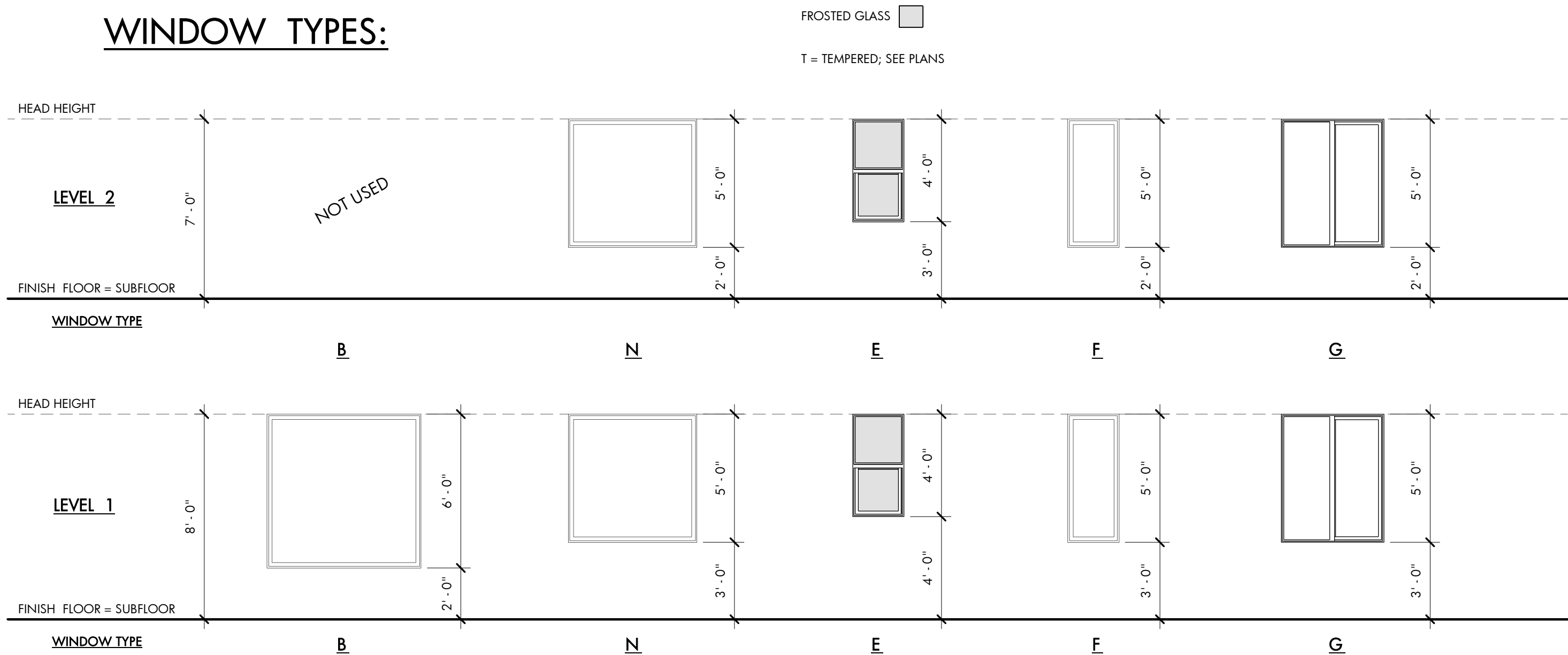
GENERAL NOTES - DOORS

- MEANS OF EGRESS - DOORS:
 - SHALL BE READILY DISTINGUISHABLE FROM THE ADJACENT CONSTRUCTION AND FINISHES SUCH THAT DOORS ARE EASILY RECOGNIZABLE AS DOORS.
 - MIRRORS OR SIMILAR REFLECTING MATERIALS SHALL NOT BE USED ON DOORS.
 - SHALL NOT BE CONCEALED BY CURTAINS, DRAPES, DECORATIONS, OR MATERIALS.
 - SHALL BE OF THE PIVOTED OR SIDE-HINGED SWINGING TYPE
 - SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL WHERE SERVING A ROOM OR AREA CONTAINING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.
 - DOOR OPENING FORCE SHALL COMPLY WITH SECTION 1010.1.3
- DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS.
- DOOR PER SCHEDULE. FRAME PER MANUFACTURER. (NOTE INSULATION REQUIREMENTS WHEN ORDERING THE FRAME FOR EXTERIOR DOORS.)
- AIR LEAKAGE OR WINDOW AND SLIDING/SWING DOOR ASSEMBLIES THAT ARE PART OF THE BUILDING ENVELOPE ARE DETERMINED IN ACCORDANCE WITH AAMA/WDMA/CSA 101/1.5.2/A440, OR NFRC 400 BY AN ACCREDITED INDEPENDENT LAB AND CERTIFIED AND LABELED BY THE MANUFACTURER.
- DOOR SURFACES WITHIN 10 INCHES OF THE FLOOR, MEASURED VERTICALLY, SHALL BE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN SUCH SURFACE SHALL BE WITHIN 1/16 INCH OF THE SAME PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.

WINDOW SCHEDULE

QTY.	TYPE	WIDTH	HEIGHT	OPERATION	EGRESS	COMMENTS
2	B	6' - 0"	6' - 0"	FIXED		
3	E	2' - 0"	4' - 0"	SINGLE HUNG	No	FROSTED GLAZING
2	F	2' - 0"	5' - 0"	FIXED		TEMPERED WHERE INDICATED ON PLAN
3	G	4' - 0"	5' - 0"	SLIDER	Yes	
3	N	5' - 0"	5' - 0"	FIXED		

WINDOW TYPES:



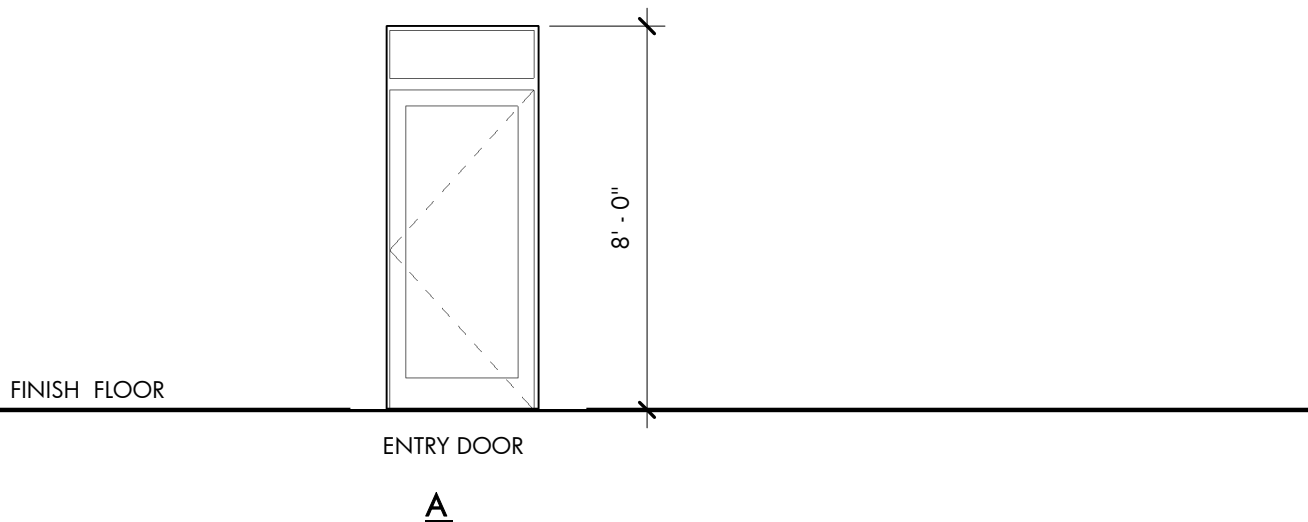
DOOR SCHEDULE

QTY.	DOOR #	TYPE	WIDTH	HEIGHT	HOLLOW/SOLID CORE	OPERATION	COMMENTS
1	01	Z	2' - 0"	6' - 8"	HC	SWING	
5	02	Z	2' - 6"	6' - 8"	HC	SWING	PRIVACY LOCK AT MASTER BEDROOMS & POWDER
2	03	Y	6' - 0"	6' - 8"	HC	BYPASS	
3	04	X	2' - 8"	6' - 8"	HC	POCKET	
2	100	A	3' - 0"	6' - 8"	SC	SWING W/ GLAZING	KEYED LOCKSET

THIS POCKET DOOR
TO HAVE A 2'-6"
CLEAR OPENING

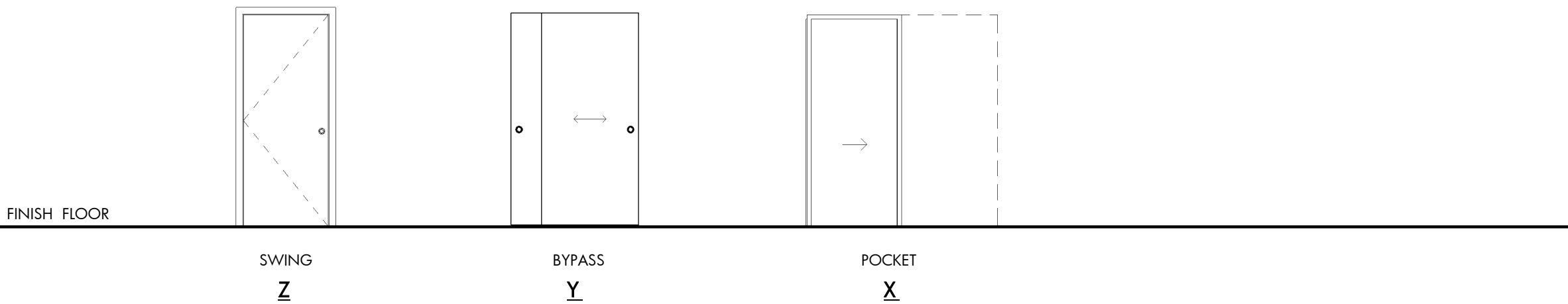
EXTERIOR DOOR TYPE:

- * SEE DOOR SCHEDULE FOR SIZES
- * SEE SAFETY GLAZING REQUIREMENTS FOR GLAZING IN DOORS
- * EXTERIOR WOOD DOORS TO BE "SOLID CORE"
- * SEE SPECIFICATION SHEET FOR DOOR PRODUCT



INTERIOR DOOR TYPE:

- * SEE DOOR SCHEDULE FOR SIZES
- * INTERIOR WOOD DOORS TO BE "HOLLOW CORE"
- * SEE SPECIFICATION SHEET FOR DOOR PRODUCT



DOOR ABBREV. & HARDWARE

MATERIAL KEY	FINISH KEY	*U.N.O. BY OWNER
HC HOLLOW CORE WOOD	PT PAINT	
SC SOLID WOOD CORE	ST STAIN	
HM HOLLOW METAL	SST STAINLESS STEEL	
WD WOOD	FF FACTORY FINISH	
TG TEMPERED GLASS	WV WOOD VENEER	
AL ALUMINUM	MFR MANUFACTURER	
VYL VINYL	PF PRE-FINISHED	
TM TIMELY FRAME OR APPROVED EQUAL	CC CLEAR COAT	
MFR MANUFACTURER	FG FROSTED GLASS - TRANSLUSCENT	
KD KNOCK/DOWN FRAME	CLR CLEAR GLASS - TRANSPARENT	
STRT STOREFRONT	ALUM ALUMINUM CLADDING WOOD PER MFR	
FBG FIBERGLASS		
STL STEEL		

HARDWARE & MISC KEY	
CL CLOSER	
LS LOCKSET	
MFR MANUFACTURER	
OCC OCCUPANCY LATCH	
SS SMOKE SEAL AND GASKET	
WS WEATHER STRIPPING	
LV LOUVERS	
PWR DOOR W/ OPENER MECHANISM NEEDING POWER	
ACC ACCESSIBLE HANDLES (ADA COMPLIANT)	